

FIG 1

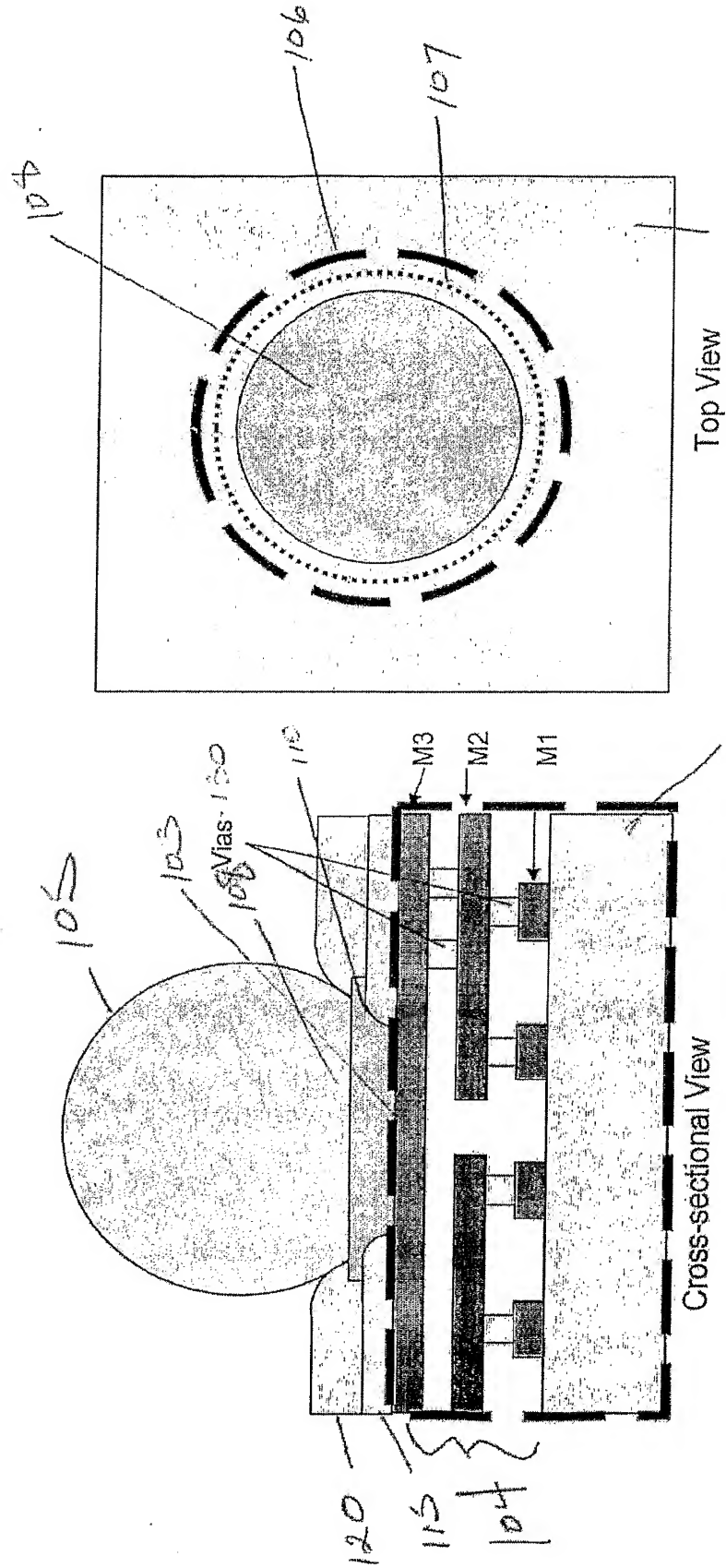


Fig. 1a

Fig. 1b

Top View

100

102

120

120

115

104

Common UBM (under bump metallurgy) Systems

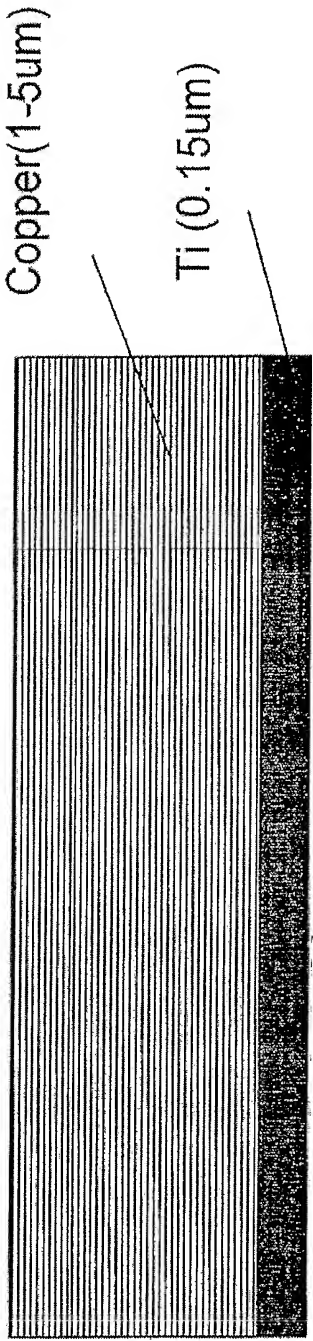
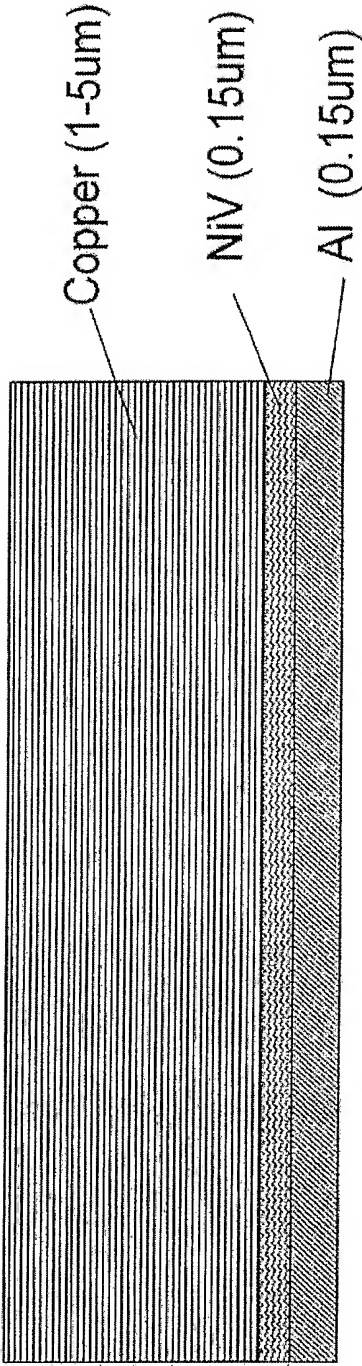


FIG 1C

FIG. 2. UBM Layer Covering Standard Top Metal Layer

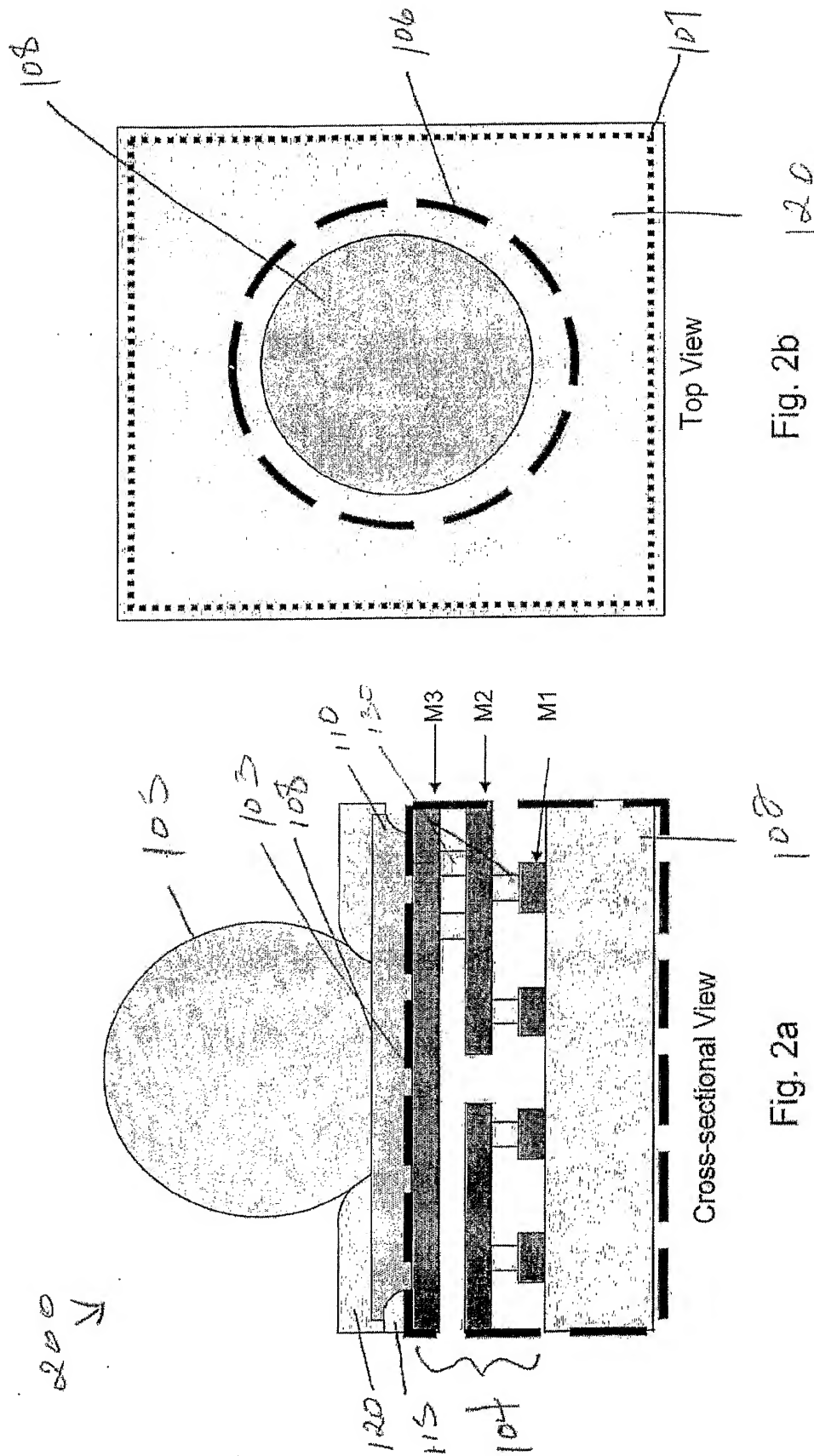


FIG 3. UBM Layer Covering Thinner Top Metal Layer

200
1

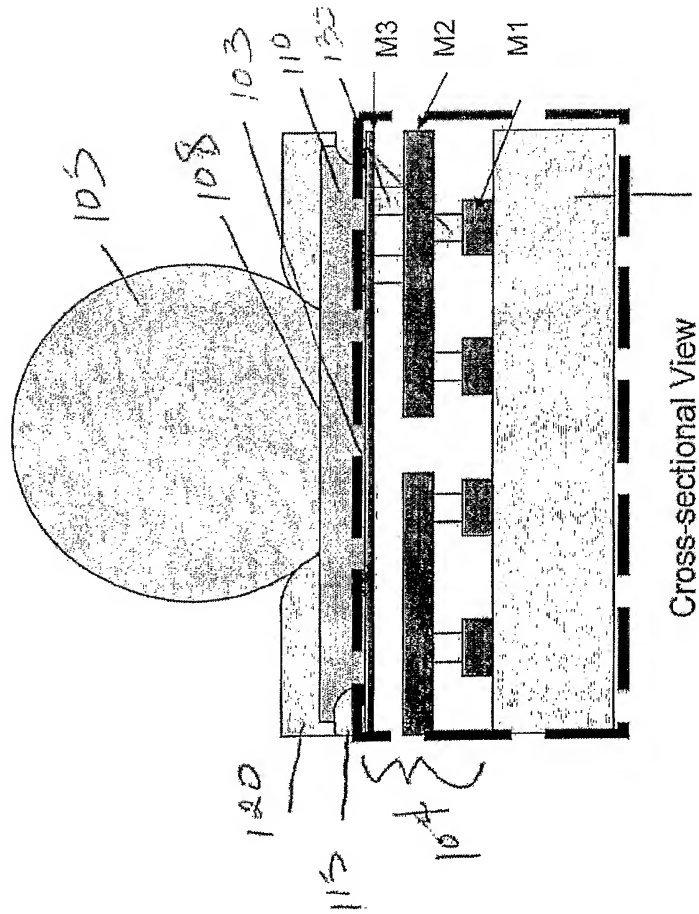


Fig. 3a 102

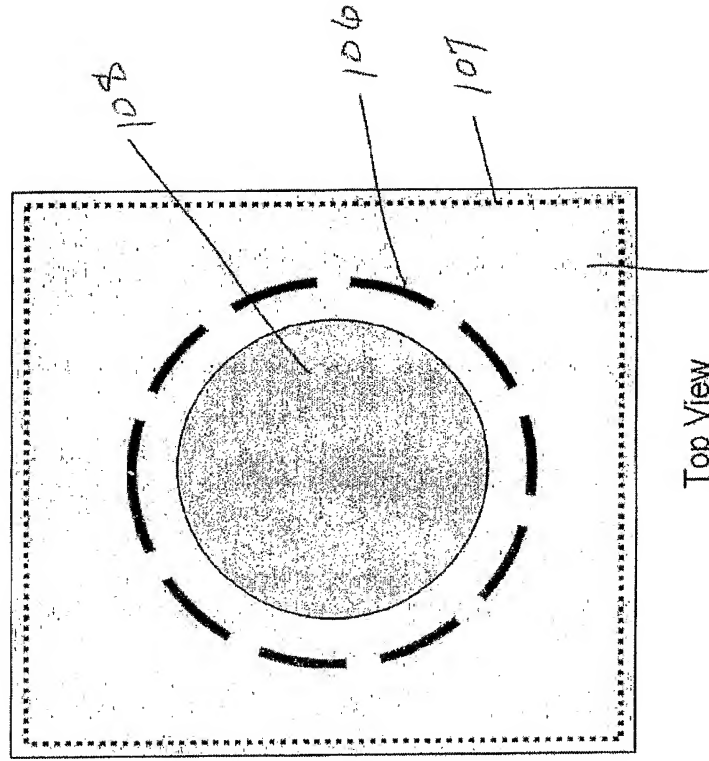


Fig. 3b 120

12/2/03

FIG 4. UBM Layer Replacing Top Metal Layer

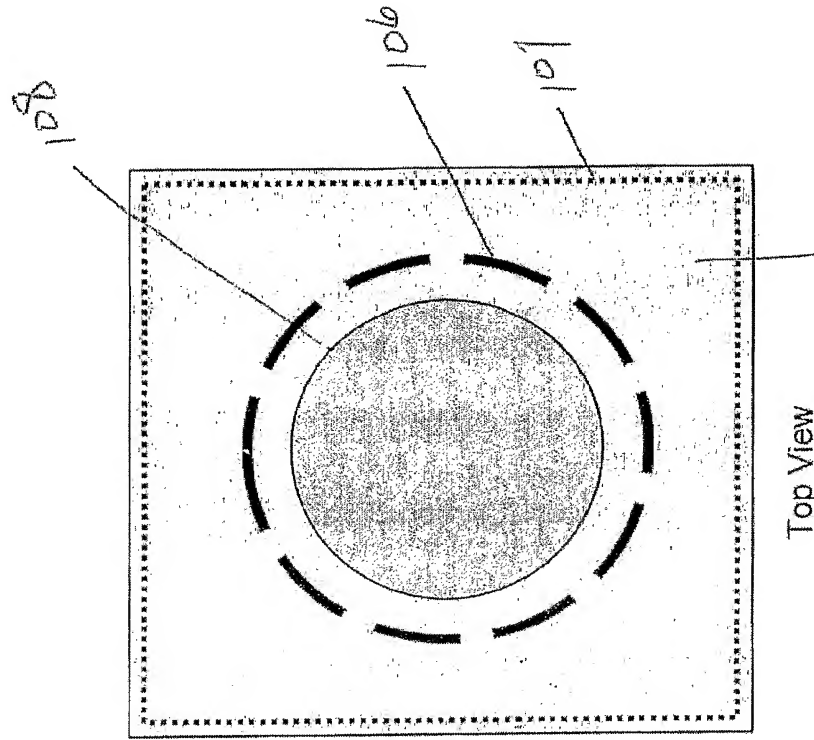
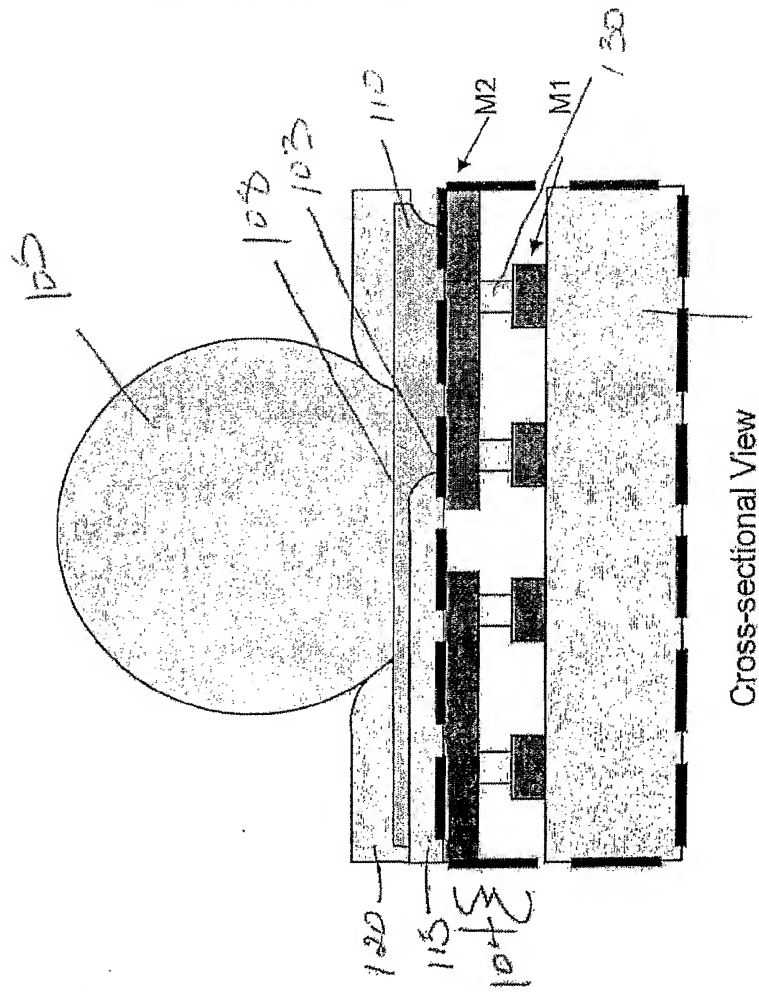


FIG. 4A

FIG. 4B 120

200 K